



#### The product range for stadiums and sports venues

Modern construction products designed specifically for the use in sports venues

Modern sports venues in Germany have gained an excellent reputation all over the world. Top-level international competitions such as the Football World Cup and the World Athletic Championships in recent years showed the stadiums in which they took place provided ideal conditions for both competitors and fans alike.

HAURATON SPORT products have also been specified at venues outside Germany. For example, at international events including the Euro Football Championship in Poland/Ukraine and the World Football Championship in Brasil it was the company's responsibility to supply and install products that drained playing and surrounding surfaces reliably. The products shown in this catalogue have been designed especially for sports facilities and demonstrate Hauraton's expertise and competence in this field. This know-how has not failed to impress designers, engineers, clients and contractors alike.

### **HAURATON** is member of IAKS





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The comprehensive product ranges for all sports facilities.

#### 1 Requirements

Water has to be removed quickly and reliably from sports fields and competition areas. The drainage channels that are used have to comply with the latest standards and also meet IAAF requirements. Sports facilities should be designed and equipped to prevent serious injury to sportspeople if falls or accidents occur.



#### 2 Solution

The SPORTFIX range offers products that comply with these requirements, e.g. drainage channels made from 100% recycled PP which can be laid precisely around sport fields. These channels are break proof and lightweight, therefore quickly and easily installed. Soft kerbs with elastic rubber padding, sand traps, water jump kit and distribution shafts also belong to our product range.

#### 3 Application areas

- ☐ Sports facilities with synthetic running tracks
- ☐ Sports facilities with artificial grass surfaces
- ☐ Sports facilities with natural grass
- ☐ Hockey pitches
- Jumping pits
- Water jump kits
- Mini pitches
- ☐ Tennis courts
- Playgrounds



Drainage for running tracks



Sand pitch with sand trap channels



# Benefits for designers

- Compliance with all international guidelines as set out by the IAAF
- ✓ Individual design support
- Service free of charge:
  hydraulic calculations, installation plans,
  project-specific tender proposals

### Some HAURATON sport references out of thousands:

- ☐ Arena Corinthians in São Paulo, Brazil
- ☐ St.-Jakob-Stadion in Basel, Switzerland
- ☐ Estádio do Maracanã in Rio de Janeiro, Brazil
- ☐ Arena da Amazônia in Manaus, Brazil
- ☐ Easy Credit Stadium in Nuremberg, Germany
- ☐ Ceahlaul Stadion in Piatra Neamt, Romania
- ☐ Stadium Zukovskij in Moscow, Russia
- ☐ Red Star Stadium in Belgrade, Serbia
- ☐ Estádio da Luz in Lisbon, Portugal
- ☐ PGE Arena in Gdansk, Poland
- ☐ National Stadium in Warsaw, Poland

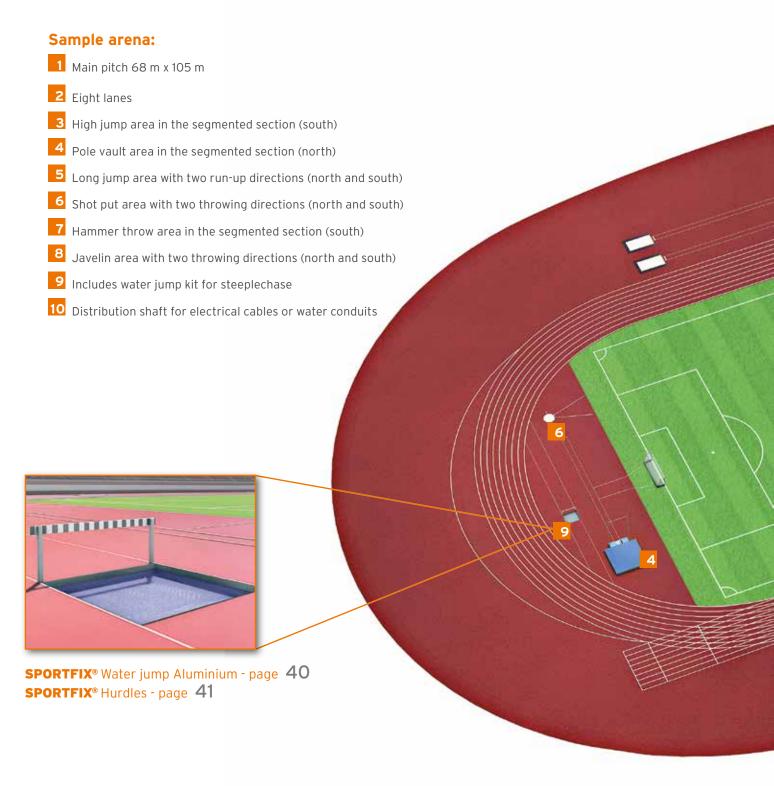
- □ Stadium in Wroclaw, Poland
- ☐ Multi-function Arena in Poznan, Poland
- ☐ Cenard Stadium in Buenos Aires, Argentina
- ☐ Khalifa Stadium in Doha, Qatar
- Stadium in Rennes, France
- ☐ MM Arena in Le Mans, France
- ☐ Cardiff City Stadium, UK
- ☐ Wembley Stadium in London, UK
- ☐ FC Emirates Stadium (Arsenal) in London, UK
- □ ...



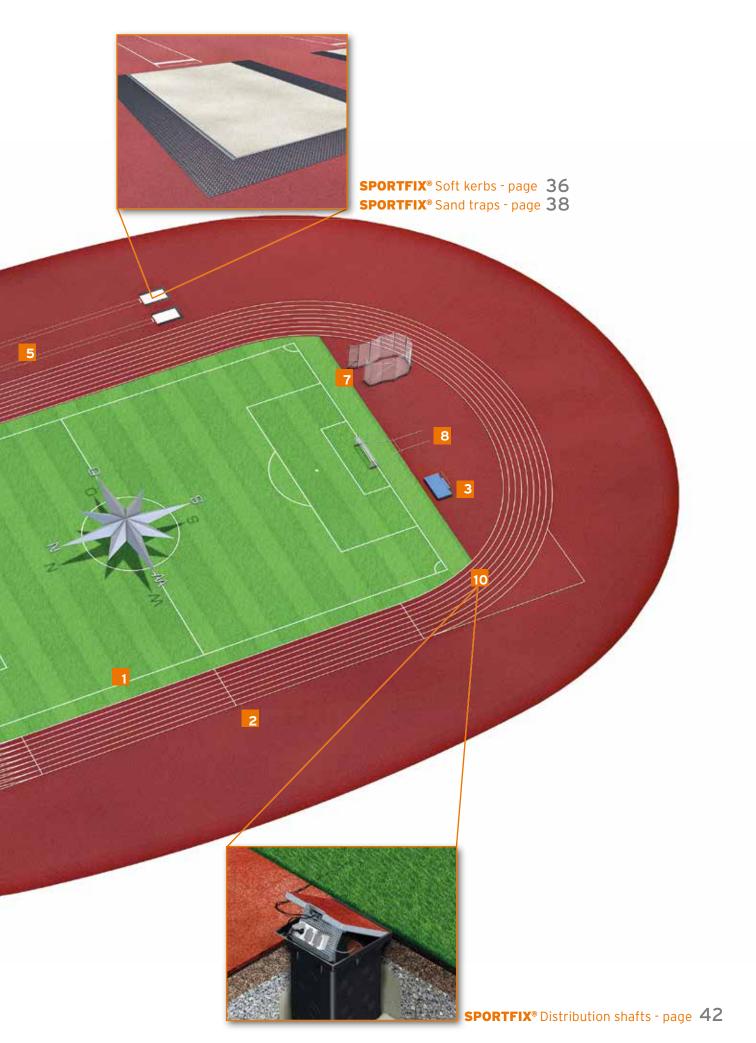




## Equipment for athletic stadium and sports ground construction







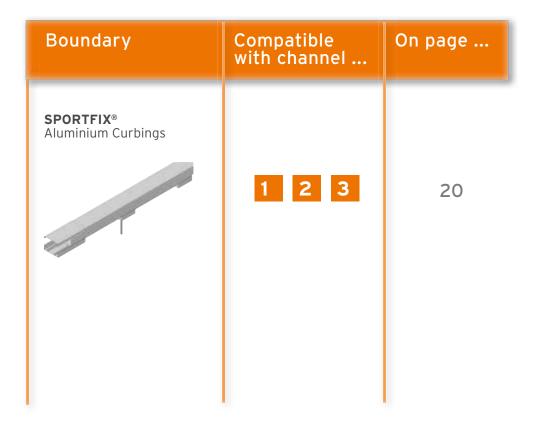
### Drainage channels for **IAAF** facilities



	1	_	2	3	Accessory		
	SPORTFI Slotted ch		SPORTFIX® PRO	SPORTFIX® STANDARD	SPORTF	IX®Trash boxes	
	The state of the s	January Co.	with FIBRETEC slotted grating with GUGI-Grating				
To be used in section	a b c	a b	a b	a b	a b c	a b	
On page	16	16	22	26		responding el system	



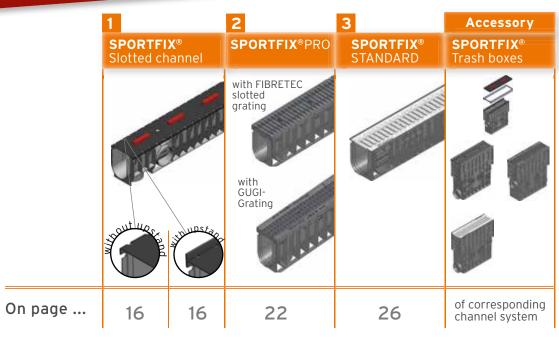
### Boundary for **IAAF** facilities



### Drainage channels for **further** running tracks



All channel systems can be combined and used in every section a b c !





### Boundary solutions



### Equipment for stadiums and sports facilities

### HAURATON references for football stadiums:

- ☐ Arena Corinthians in São Paulo, Brazil
- ☐ St.-Jakob-Stadion in Basel, Switzerland
- ☐ Wembley Stadium in London, UK
- ☐ Stádio Municipal do Maracanã in Rio de Janeiro, Brazil
- ☐ Estádio da Luz in Lisbon, Portugal
- ☐ Khalifa Stadium in Doha, Qatar
- ☐ Arena da Amazônia in Manaus,Brazil
- ☐ FC Emirates Stadium (Arsenal) in London, UK
- ☐ Easy Credit Stadium in Nuremberg, Germany
- ☐ Stadium Zukovskij in Moscow, Russia
- ☐ PGE Arena in Gdansk, Poland
- □ National Stadium in Warsaw, Poland
- □ ...





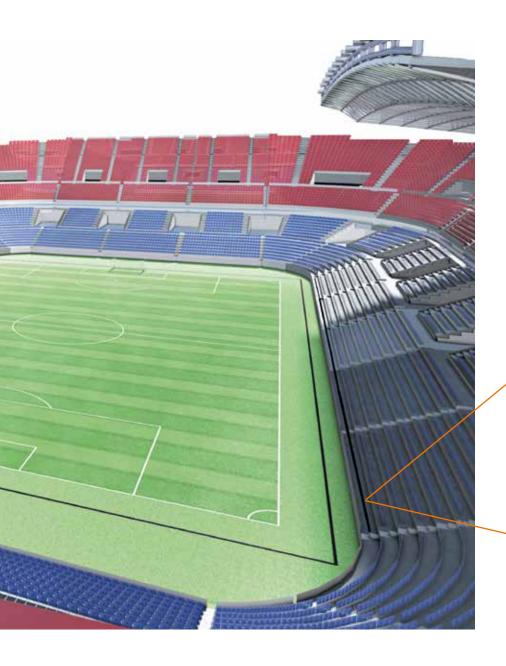
For hockey pitches:

**SPORTFIX®** Channel type ROME I page **30** 

For artificial turf applications with filled pole layer:

**SPORTFIX®** Channel type ROME II page 33

### **■** hauraton







**SERVICE** Channels page **43** 

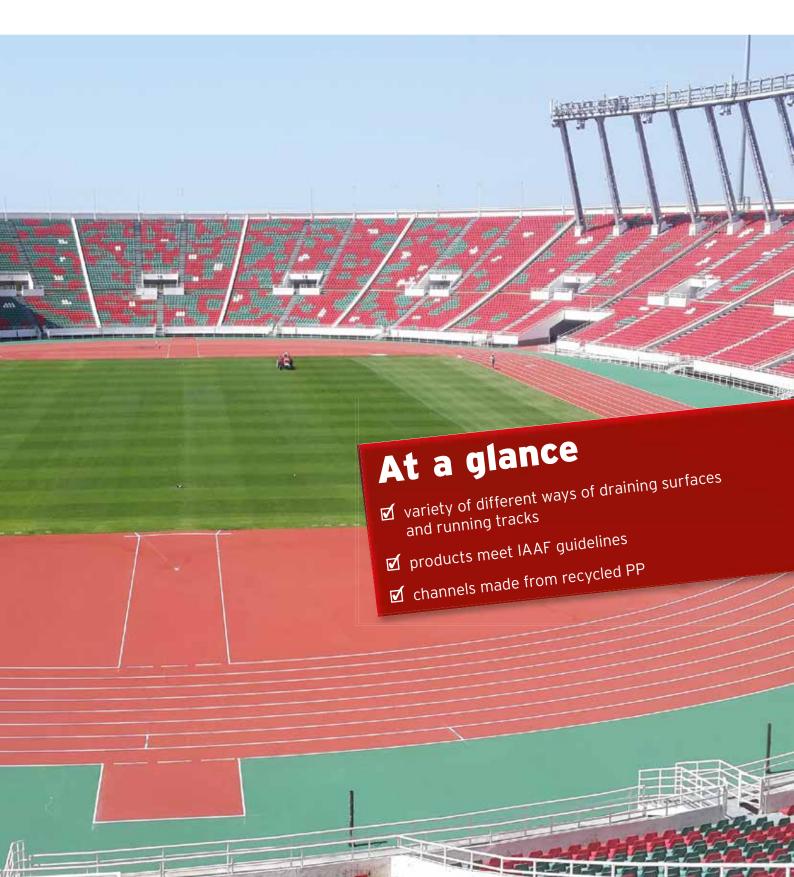
### **SPORTFIX**®Channels

Perfect drainage channels for IAAF accredited sports facilities.



### ■ hauraton





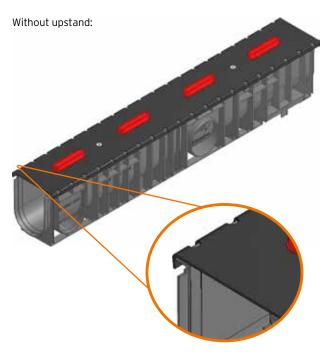
### **SPORTFIX**®Slotted Channels

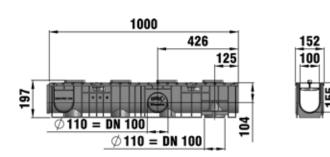
#### **SPORTFIX®Slotted Channels**

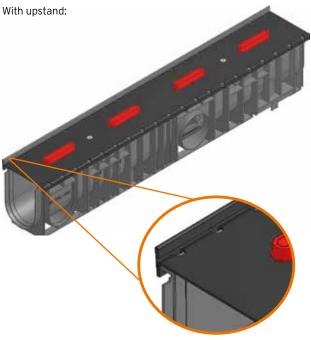
- ☐ CDP-coating to ensure a perfect join with the running track surface.
- ☐ EPDM slots that are easily opened using a screwdriver once the track surface has been laid.

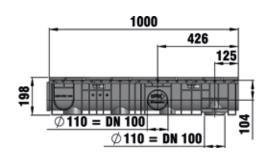


Optional second drainage level - page 18









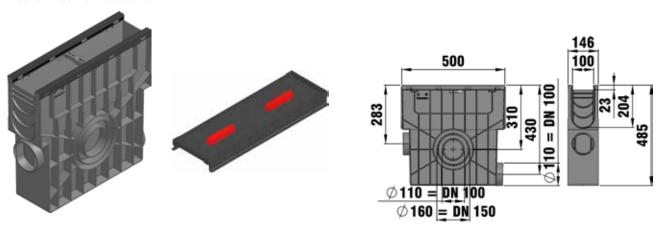


Туре	Length	Width	Height	Weight	Item-
	mm	mm	mm	kg	no.
SUPER type 01 without upstand, straight	1000	152	133	5,2	7811
SUPER type 01, with upstand, straight	1000	152	148	6,4	7821
SUPER type 010 without upstand, straight	1000	152	184	5,8	7810
SUPER type 010, with upstand, straight	1000	152	199	6,4	7820

#### **SPORTFIX**®Trash box

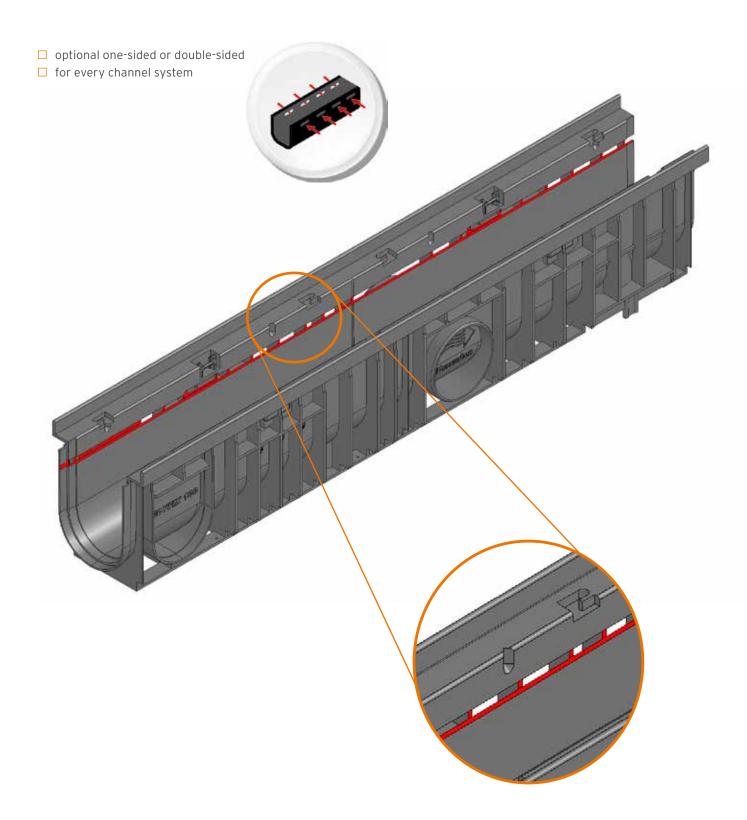
- made of PP
- ☐ fits seamlessly with the corresponding channel

#### Trash box 100 with mud bucket

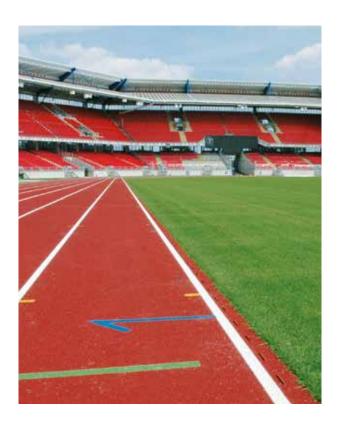


Туре	Length mm	Width mm	Height mm	Weight kg	Item- no.
Trash box 100 with mud bucket	500	146	485	4,4	7830
Access cover, KTL-coated	500	168	41	2,8	7785

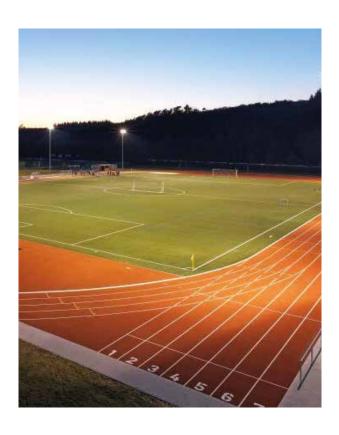
### Lateral openings for channels -Second drainage level



### **■** hauraton









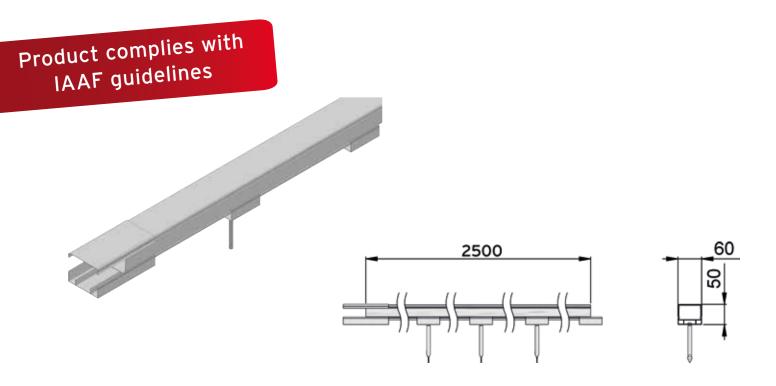
### **SPORTFIX®** Aluminium Curbings

#### SPORTFIX® Aluminium Curbings

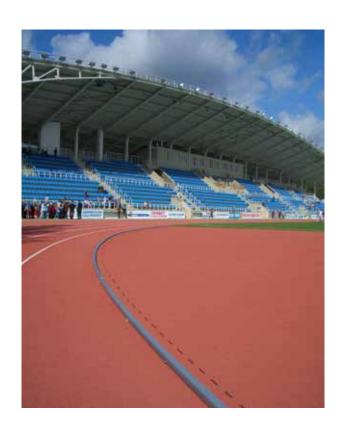
Many various events that are held at sport facilities often require moveable boundaries. Such boundaries may be provided and removed easily with SPORTFIX Aluminium Curbings.

The SPORTFIX Aluminium Curbings are suitale for the usage as mobile border for running track as well as a cover for slotted channels. They are manufactured as a complete unit with integrated push-in elements and fixing pegs.

SPORTFIX Aluminium Curbings are made of an aluminium-magnesium alloy. The set consists of 170 straight units and 230 curved units, both in 2.5 m lengths. The radius of the curved units is 36.5 m (special radii on request).



Type	Length	Width	Height	Weight	Item-
	mm	mm	mm	kg	no.
set (160 pieces) for 400 m track,	2500	60	50	406	7085
including fixing material					







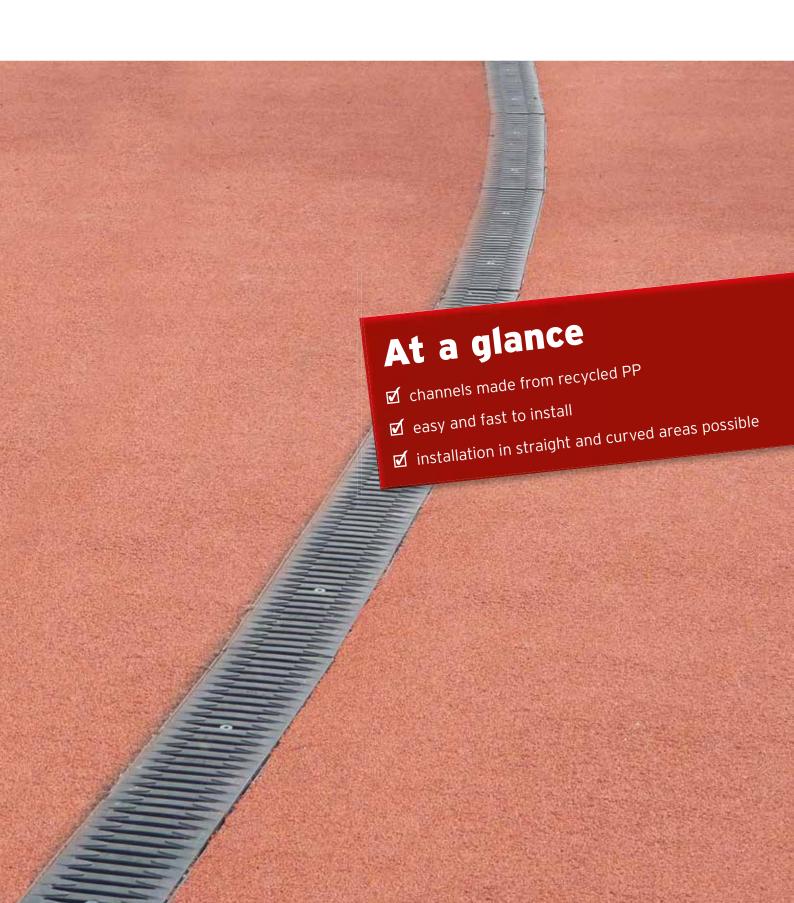


### **SPORTFIX®PRO**

Light and durable track drainage.







#### SPORTFIX®PRO Channels:

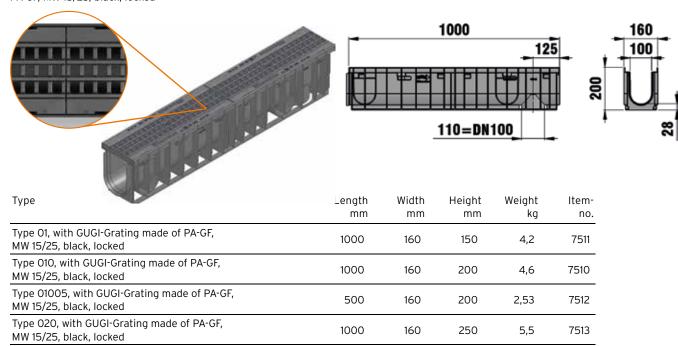
- ☐ channels made of PP and gratings made of high-quality PA-GF (Polyamide)
- ☐ drainage system according EN 1433
- ☐ lightweight, robust and easy to install
- no gap in the curved area through the groove and tongue system



Optional second drainage level - page 18

#### SPORTFIX®PRO Channel

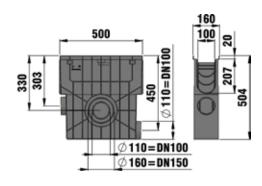
Type 010, with GUGI-Grating made of PA-GF, MW 15/25, black, locked



#### SPORTFIX®PRO Trash box

Trash box with mud bucket and GUGI-Grating made of PA-GF, MW 15/25, black, cl. B 125, locked



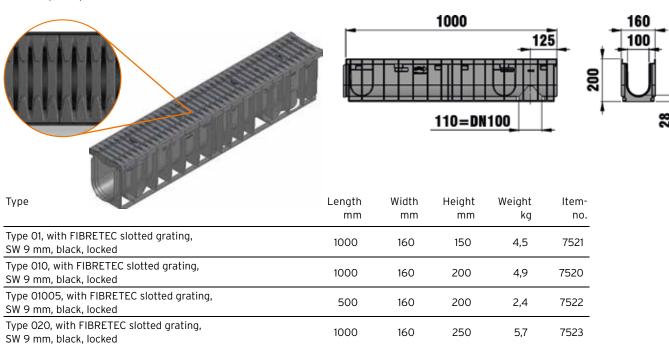


Туре	Length	Width	Height	Weight	Item-
	mm	mm	mm	kg	no.
Trash box with mud bucket and GUGI-Grating made of PA-GF, MW 15/25, black, cl. B 125, locked	500	160	504	5,8	7515

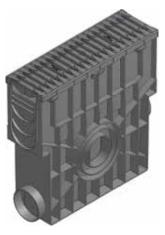


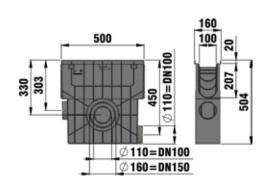
#### SPORTFIX®PRO Channels

Type 010, with FIBRETEC slotted grating, SW 9 mm, black, locked



Trash box with mud bucket and FIBRETEC slotted grating, SW 9 mm, black, cl. C 250





Туре	Length	Width	Height	Weight	Item-
	mm	mm	mm	kg	no.
Trash box with mud bucket and FIBRETEC slotted grating, SW 9 mm, black, cl. C 250	500	160	504	5,9	7525





Optional second drainage level - page 18

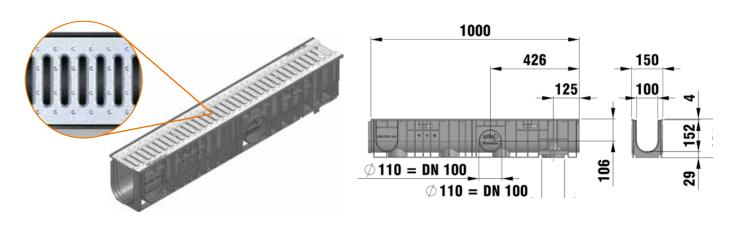
Light and durable track drainage.

#### **SPORTFIX®STANDARD Channel:**

- channel made from recycled PP making it environmentally friendly
- ☐ high resistance against frost and road salt
- very light which makes it quick and easy to install

#### SPORTFIX®STANDARD Channel, trafficable

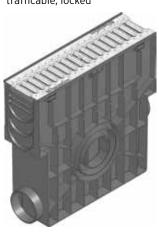
Type 010, with slotted grating, SW 75/9, locked

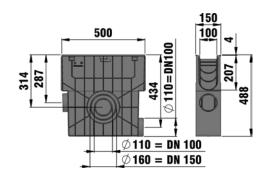


Туре	Length mm	Width mm	Height mm	Weight kg	Item- no.
Type 01, with slotted grating, SW 75/9, locked	1000	150	134	3,8	7531
Type 0105, with slotted grating, SW 75/9, locked	500	150	134	1,8	7532
Type 010, with slotted grating, SW 75/9, locked	1000	150	185	5,3	7530
Type 01005, with slotted grating, SW 75/9, locked	500	150	185	2,6	7533

#### SPORTFIX®STANDARD Trash box

Trash box with mud bucket and slotted grating, SW 75/9, trafficable, locked





Туре	Length	Width	Height	Weight	Product
	mm	mm	mm	kg	code
Trash box with mud bucket and slotted grating, SW 75/9, trafficable, locked	500	158	420	4,9	7535





### Drainage systems for all sports surfaces

Artificial turf has become an indispensable part of today's sports world. The reasons for this are: it is maintenance-friendly, impervious to weather and always provides the best playing conditions. With all these properties, the artificial turf offers a versatile use.

A general distinction is made between artificial turf with:

- filled pole layer
- unfilled pole layer

An artificial turf with a filled pole layer consists of a mixture of sand with rubber granulate or sand with cork. The unfilled pole layer refers to the traditional artificial turf on the elastic layer. The DIN 18035 Part 4-7 regulates all requirements of floor coverings for sports facilities.







Hockey field

Proper surface drainage is very important for protection of the entire sports complex, the coverings as well as the athletes. For decades artificial turf and hockey have been inseparable. For this application, artificial turf with unfilled pole layer has prevailed.

The SPORTFIX channel ROME I (page 30) is the drainage system for hockey pitches. This drainage system ensures the flatness of the surface and directs surplus accumulating surface water quickly.

For applications with filled pole layer, the drainage systems SPORTFIX Channel ROME II (page 33) and SPORTFIX Channel BASEL (page 34) guarantee smooth surface drainage.



Football stadium



Football stadium

### **SPORTFIX®**Channel ROME

For artificial turf surfaces that need to be secured.



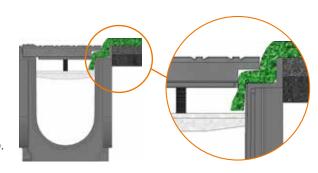


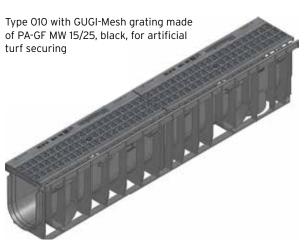
### **SPORTFIX®**Channel ROME

#### **SPORTFIX®**Channel ROME I

The SPORTFIX channel ROME I is primarily used for hockey pitches. The system can be adapted to any size of artificial turf which needs no tension.

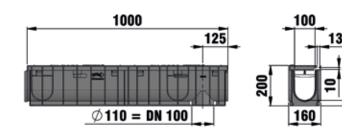
The artificial turf is just layed into the channel and jammed with the GUGI-Mesh grating which is locked with a locking handle (two per metre). This ensures that the turf covering remains securely in place.







Optional second drainage level - page 18

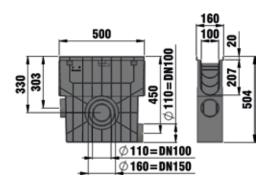


Туре	Length mm	Width mm	Height mm	Weight kg	Item- no.
Type 010 with GUGI-Mesh grating made of PA-GF MW 15/25, black, for artificial turf securing	1000	160	200	4,7	7862
Type 01005 with GUGI-Mesh grating made of PA-GF MW 15/25, black, for artificial turf securing	500	160	200	2,4	7869
Type 020 with GUGI-Mesh grating made of PA-GF MW 15/25, black, for artificial turf securing	1000	160	250	4,0	7867

#### **SPORTFIX®** Accessory ROME I

Trash box with mud bucket, with GUGI-Mesh grating made of PA-GF, MW 15/25, black, for artificial turf securing



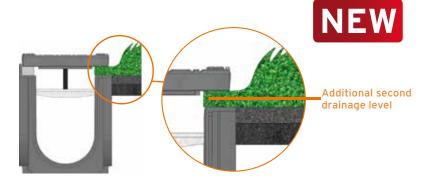


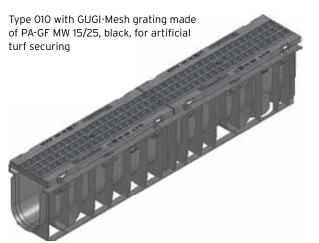
Туре	Length	Width	Height	Weight	Item-
	mm	mm	mm	kg	no.
Trash box with mud bucket, with GUGI-Mesh grating made of PA-GF,	500	160	504	5,4	7870

#### **SPORTFIX**®Channel ROME II

The SPORTFIX channel ROME II is for artificial turf with filled pole layer (e.g. football fields).

With the help of a special construction profile the gratings are positioned just above the top edge of the angle housing. The artificial turf is just layed under the grating, remains securely in place and creates a second drainage level.





## At a glance

☑ ROME I: for hockey pitches

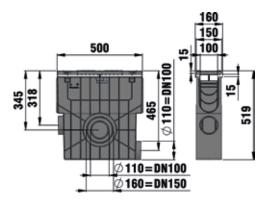
ROME II: for artificial turf with filled pole layer

Туре	Length mm	Width mm	Height mm	Weight kg	Item- no.
Type 010 with GUGI-Mesh grating made of PA-GF MW 15/25, black, for artificial turf securing	1000	160	215	-	7863
Type 01005 with GUGI-Mesh grating made of PA-GF MW 15/25, black, for artificial turf securing	500	160	215	-	7868

#### **SPORTFIX®** Accessory ROME II

Trash box with mud bucket, with GUGI-Mesh grating made of PA-GF, MW 15/25, black, for artificial turf securing





Type	Length	Width	Height	Weight	Item-
	mm	mm	mm	kg	no.
Trash box with mud bucket, with GUGI-Mesh grating made of PA-GF, MW 15/25, black, for artificial turf securing	500	160	519	-	7871

### **SPORTFIX®**Soft kerbs



Used for edging sand pits, sand traps, shot-putting facilities and other sports areas. Rubber cushioned capping minimises the risk of injury to athletes.

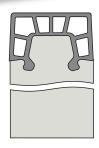
#### **SPORTFIX Soft kerbs for:**

- jumping pits
- sand pits
- ☐ definition of outside edge of a running tack
- permanent delineation of separate areas in sports grounds



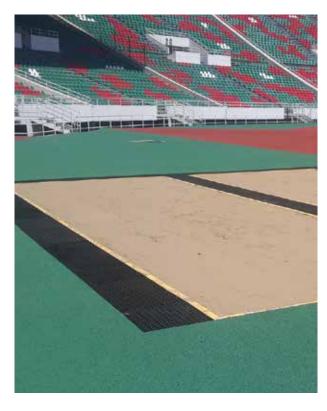
## At a glance

- $oldsymbol{ec{ec{v}}}$  different heights and corner elements available
- ✓ rubber cushion made of EPDM and air cushions inside to minimise the risk to athletes



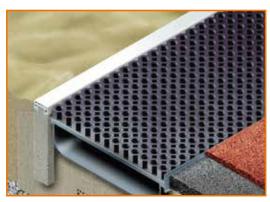
Туре	Length mm	Width mm	Height mm	Weight kg	Item- no.
white	1000	60	200	24,0	7200
white	1000	60	250	30,0	7201
white	1000	60	300	36,0	7202
white	1000	60	400	49,0	7203
white	500	60	400	24,5	7204
Angle pieces, white	250/250	60	300	16,4	7208
Angle pieces, white	250/250	60	400	21,5	7209
black	1000	60	200	24,0	7220
black	1000	60	250	30,0	7221
black	1000	60	300	36,0	7222
black	1000	60	400	49,0	7223
black	500	60	400	24,5	7224
Angle pieces, black	250/250	60	300	16,4	7228
Angle pieces, black	250/250	60	400	21,5	7229



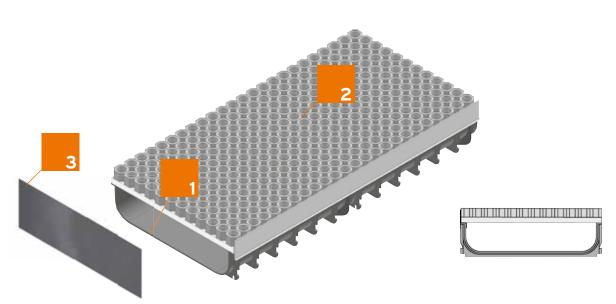








**Prevents sand spreading on to the running track.**Trap channels allow different sand pit sizes to be achieved.
For IAAF guidelines see page 39.



- Lower section made from polypropylene (2 x 500 mm) with prefabricated DN 100 connection facility
- End cap for sand trap (has to be installed on one side to the surface layers)
- Mesh grating with firmly attached rubber mat and single-sided metal profile (1000 mm) for a neat joint with running track surfaces

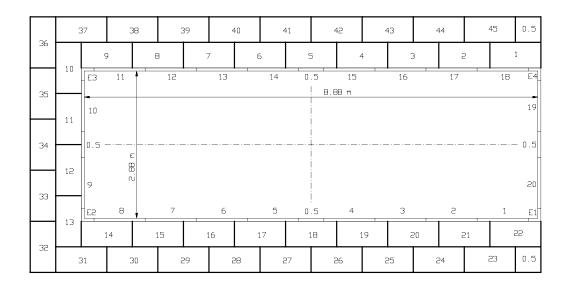
Туре	Length mm	Width mm	Height mm	Weight kg	Item- no.
Sand trap 2 x 500 mm	1000	500	163	16,8	7740
Sand trap	500	500	163	8,8	7745
End cap	-	500	175	0,5	7248

### Jumping pit with sand trap 2.88 m x 8.88 m in accordance with IAAF specifications

Soft kerbs: 20 x 1 m + 4 x 0.5 m + 4 corner pieces 0.25 m x 0.25 m

SPORTFIX sand trap: "Single" 22 x 1 m

SPORTFIX sand trap: "Double" 45 x 1 m + 2 x 0.5 m







- $oldsymbol{arnothing}$  expanded metal grating and rigidly mounted rubber mat on top
- ✓ single and double width installation possible



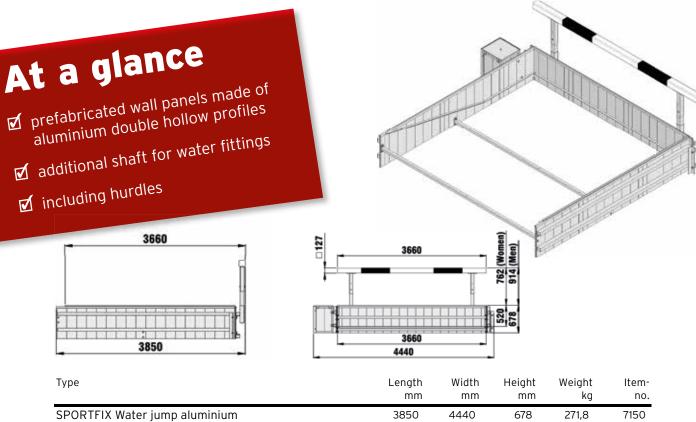


# **SPORTFIX®** Water jump Aluminium



Water jump for steeplechases in accordance with IAAF requirements.

Modular construction for quick and easy assembling.





Cover with underframe for water jump



3656

3417



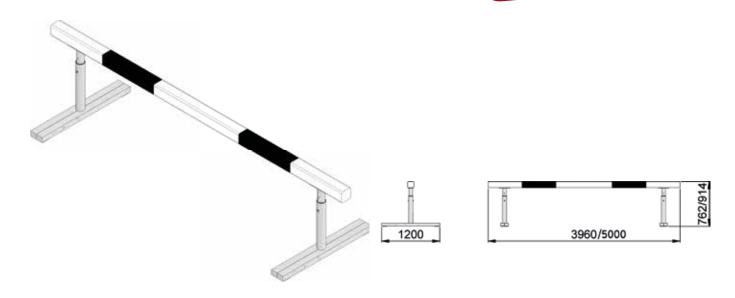
7152

## **SPORTFIX®** Hurdles

#### **SPORTFIX®Hurdles**

The SPORTFIX Hurdle is made of aluminium and has a wodden cross bar. The hurdles are easily and quickly adjustable to international competition heights for both women (0.762 m) and men (0.914 m). This article is delivered in a set of four pieces. The fifth hurdle needed for the decathlon is already part of the SPORTFIX water jump made of aluminium. The black and white upper crossbars are made from timber wood.

Product complies with IAAF guidelines



Туре	Length mm	Width mm	Height mm	Weight kg	Item- no.
SPORTFIX Hurdles for steeplechase, set of 4 pieces					
(3x 3960 mm, 1x 5000 mm), high adjustable for women	1200	3960/5000	762 /914	90	7154
(762 mm) and men (914 mm )					





# **SPORTFIX®** Distribution shaft PE



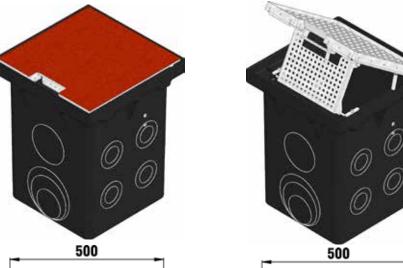


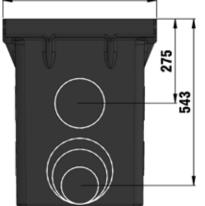
### Distribution pits made of PE for electrical cables.

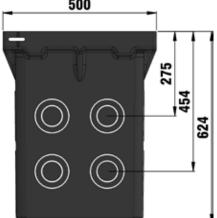
For major sports or concert venues with a lot of news transmission.

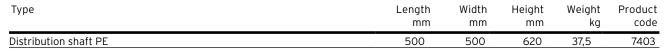
#### SPORTFIX Type E distribution shaft PE

- easy handling on site due to low weight
- openings can be opened easy and quick
- efficient installation
- durable material
- ☐ grating is made from galvanised tread plate, can support the weight of a vehicle













## **SERVICE** Channels

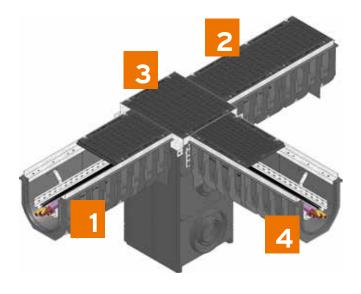


#### Cable management system.

For the safe management of power and telecommunication cables at stadiums and race tracks. Suitable for industrial applications.

#### **RECYFIX®SERVICE Channels**

- nominal size 100 and 300
- ☐ with solid ductile iron covers in class E 600
- □ robust, non-slip grating





■ RECYFIX SERVICE Channel made of Polypropylene with galvanised ductile iron angle housing.



■ Solid ductile iron cover, black, class E 600



■ Trash box for the preparation of corner and T-junctions.



 $\blacksquare$  Cable duct to lay cables inside.

### **RECYFIX®SERVICE Channels**

Туре	Length mm	Width mm	Height mm	Weight kg	Product code
Type 01, RECYFIX STANDARD 100	1000	158	135	2,5	48000
Type 010, RECYFIX STANDARD 100	1000	150	185	3,0	40242
Type 010, RECYFIX SUPER 300	1000	390	185	3,0	40900

### **RECYFIX®SERVICE Gratings**

Туре	Length mm	Width mm	Height mm	Weight kg	Product code
Checkered plate, galvanised for type 01, type 010 RECYFIX STANDARD 100, class A 15	1000	136	22	3,1	40271
Solide ductile iron grating, black, for type 010, RECYFIX SUPER 300, class E 600	500	377	40	21,5	4262

### Installation

#### General installation instructions

Designers, engineers and contractors can request digital or hardcopy installation instructions at any time.

Hardcopy installation instructions are always provided with every delivery.

Specific advice is always available from Hauraton sales support.

#### Installation procedure

To get an idea of the correct installation procedure of SPORTFIX Channels please see below.

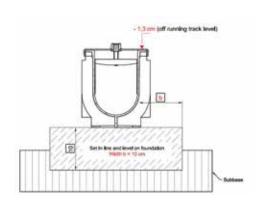
Step 1: Foundation on subbase





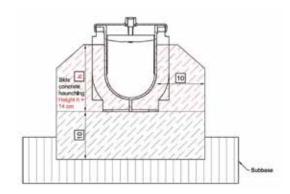
Step 2: Lining and levelling





Step 3: Concrete haunching

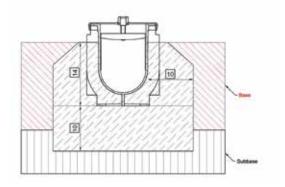






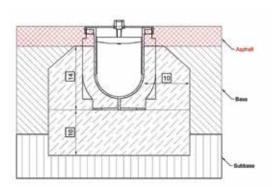
Step 4: Base for surfacing



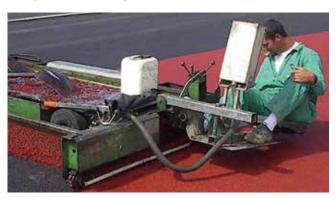


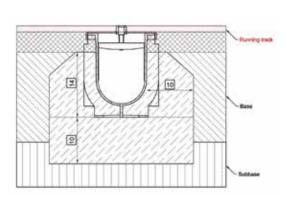
Step 5: Asphalt





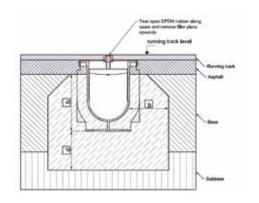
Step 6: Running track surface





Step 7: Open drainage slots





# Drainage solutions for grandstands



#### **RECYFIX®PRO**

- channel made of PP and grating made of high-quality PA-GF (Polyamide)
- **☑** corrosion-free gratings:
  - FIBRETEC slotted grating: anti-slippery surface, hydraulically optimized with elegant inlet slots
  - GUGI-Mesh grating
  - ductile iron longitudinal grating, KTL coated



# Additional drainage solutions

#### **Example:**

Drainage of periphery of sports facilities (e.g. parking lots)



#### **RECYFIX**®HICAP®

- igh capacity drainage channel
- suitable for heavy load areas
- on expensive crane or machine hours for installation required



#### **RECYFIX®NC**

- extremly stable and lightweight channels made of PP for civil engineering
- high stability with durable ductile iron grating (8-fold bolted)
- low weight ensures easy handling on site
- prefabricated ready to install







**Example:** Seepage of surface water



#### **DRAINFIX®BLOC**

- extremely functional
  - load-bearing up to SLW 30
  - huge storage capacity
  - no reduction in useable space
- easy to install





#### **DRAINFIX**®CLEAN



- three components one system:
  - different channel bodies according to their load and hydraulic requirements, drainage pipe and filter substrate CARBOTEC 60 through which the cleansing of the storm water runoff occurs; pollutants such as zinc, copper, lead and fuel hydrocarbons as well as fine particles are trapped
- ✓ large retention volume
- fast and simple installation
- cost-saving maintenance schedule



#### **DRAINFIX**®TWIN



very large storage volume



flexible installation alignment due to variable combinations



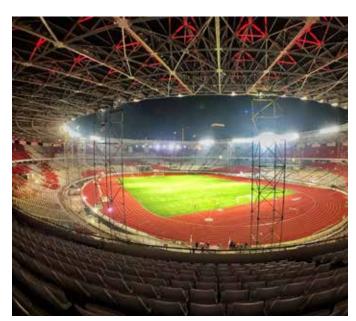
fast and simple installation



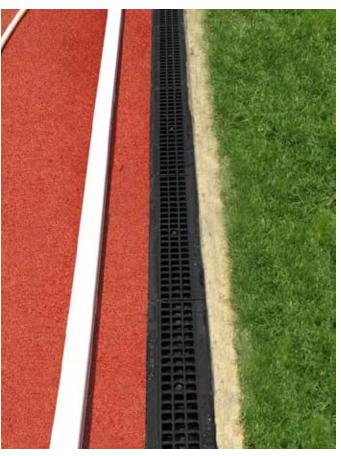
combination of seepage and retention possible



# References



Stadium Gelora Bung Karno, Jakarta



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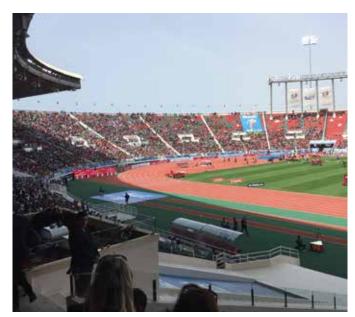


Palanga city stadium, Palanga



Sport facility, Morbach





National stadium, Rabat



National stadium, Rabat



Stadium Gelora Bung Karno, Jakarta



Stadium Gelora Bung Karno, Jakarta



Stadium Gelora Bung Karno, Jakarta

